CLAIMS

1. A production process for a transesterified oil/fat or triglyceride, by transesterification of 50-100 parts by weight of one or more fungus-produced oils/fats or triglycerides containing at least 20% of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds and 0-50 parts by weight of one or more vegetable oils/fats or triglycerides, using a 1,3-position specific type lipase.

2. A production process according to claim 1, wherein the transesterification reaction is conducted in a deoxygenated state.

3. A production process according to claim 1 or 2, wherein the fungus-produced fatty acid is ω6 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

4. A production process according to claim 1 or 2, wherein the fungus-produced fatty acid is ω9 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

5. A production process according to claim 1 or 2, wherein the fungus-produced fatty acid is arachidonic acid.

6. A production process according to claim 1 or 2, wherein the fatty acid is arachidonic acid produced by a microbe belonging to the genus *Mortierella*.

7. A production process according to claim 1 or 2, wherein the fungus-produced fatty acid is dihomo-γ-linolenic acid.

8. A production process according to claim 1 or 2, wherein the fungus-produced fatty acid is mead acid.

9. A production process according to any one of claims 1 to 8, wherein the lipase is a lipase produced by *Rhizopus delemar*, *Rhizopus niveus*, *Rhizomucor miehei* or *Rhizopus oryzae*.

10. A transesterified oil/fat or triglyceride

obtained by a production process according to any one of claims 1 to 9.

11. A transesterified oil/fat or triglyceride which is an oil/fat or triglyceride containing at least 20% of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds in the molecule, and/or no more than 4.0% of triglycerides with 3 residues of the same polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

12. A transesterified oil/fat or triglyceride which contains at least 20% of fungus-produced ω6 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of ω6 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds in the molecule, and/or no more than 4.0% of triglycerides with 3 residues of the same fungus-produced ω6 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

13. A transesterified oil/fat or triglyceride which contains at least 15% of fungus-produced ω9 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of ω9 series polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds in the molecule, and/or no more than 4.0% of triglycerides with 3 residues of the same fungus-produced ω9 series

polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

14. A transesterified oil/fat or triglyceride containing at least 20% of arachidonic acid, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of arachidonic acid in the molecule and/or no more than 4.0% of AAA (a triglyceride with 3 residues of arachidonic acid in the molecule).

15. A transesterified oil/fat or triglyceride containing at least 20% of dihomo-γ-linolenic acid, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of dihomo-γ-linolenic acid in the molecule and/or no more than 4.0% of DDD (a triglyceride with 3 residues of dihomo-γ-linolenic acid in the molecule).

16. A transesterified oil/fat or triglyceride containing at least 20% of mead acid, obtained by a production process according to any one of claims 1 to 9, and which contains at least 40% of triglycerides with one residue of mead acid in the molecule and/or no more than 4.0% of MMM (a triglyceride with 3 residues of mead acid in the molecule).

17. A transesterified oil/fat or triglyceride containing at least 20% of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds, and which contains at least 40% of triglycerides with one residue of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds in the molecule, and/or no more than 4.0% of triglycerides with 3 residues of the same polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds.

18. An oil/fat or triglyceride containing at least 20% of arachidonic acid, and which contains at least 40%

of triglycerides with one residue of arachidonic acid in the molecule and/or no more than 4.0% of AAA.

19. An oil/fat or triglyceride containing at least 20% of dihomo-γ-linolenic acid, and which contains at least 40% of triglycerides with one residue of dihomo-γ-linolenic acid in the molecule and/or no more than 4.0% of DDD.

20. An oil/fat or triglyceride containing at least 20% of mead acid, and which contains at least 40% of triglycerides with one residue of mead acid in the molecule and/or no more than 4.0% of MMM.

21. A production process for a transesterified oil/fat or triglyceride, containing polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds and one or more medium-chain fatty acids as constituent fatty acids, by transesterification of 50 - 100 parts by weight of one or more fungus-produced oils/fats or triglyceride containing at least 20% of polyunsaturated fatty acids containing 20 or more carbons and two or more double bonds and 0 - 50 parts by weight of one or more medium-chain fatty acid triglycerides (ZZZ), using a 1,3-position specific type lipase.

22. A production process according to claim 21 wherein the polysaturated acid containing 20 or more carbons and two or more double bonds is arachidonic acid.

23. A production process according to claim 21 or 22 wherein the medium-chain fatty acid triglyceride is tri-octanoic acid glyceride.

24. A transesterified oil/fat or triglyceride obtained by a production process according to any one of claims 21 to 23.

25. A transesterified oil/fat or triglyceride containing at least 1 wt% of each of a triglyceride containing arachidonic acid (A) and medium-chain fatty acid (Z) as constituent fatty acid, ZAZ (a triglyceride with 2 residues of medium-chain fatty acid and one

residue of arachidonic acid, wherein arachidonic acid is bound to the position 2) and ZZA (a triglyceride with 2 residues of medium-chain fatty acid and one residue of arachidonic acid, wherein arachidonic acid is bound to the position 1 or 3).

26. A transesterified oil/fat according to claim 25 wherein the medium-chain fatty acid is octanoic acid.

27. A human nutritive composition comprising an oil/fat or triglyceride according to any one of claims 10 to 20 and 24 to 26.

28. A food composition comprising an oil/fat or triglyceride according to any one of claims 10 to 20 and 24 to 26.

29. A food composition according to claim 28, characterized in that the food composition is a functional food, nutritional supplement food, modified milk for premature infants, modified milk for infants, infant food, maternal food or geriatric food.

30. An animal feed comprising an oil/fat or triglyceride according to any one of claims 10 to 20 and 24 to 26.